UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GUNTER KRODEL, LUTZ FABIAN and VOLKMAR HOPFE

Appeal No. 2005-0715
Application No. 09/725,428

HEARD: MAY 18, 2005

Before GARRIS, WARREN and JEFFREY T. SMITH, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 1-13.

The subject matter on appeal relates to a method for purifying process waste gases comprising measuring with a first detector the type and amount of selected harmful substances in the waste gas before the waste gases enter the waste gas purification system to generate first measuring signals, determining with a second detector the type and amount of selected harmful substances leaving the waste gas purification system to generate second measuring signals, and directly using the first and second measuring signals for adjusting the

operating parameters of the waste gas purification system.

Further details of this appealed subject matter are set forth in representative independent claim 1 which reads as follows:

> 1. A method for purifying process waste gases containing selected harmful substances comprising:
>
> introducing the process waste gases with combustible gas and oxygen into a waste gas purification system having a combustion chamber, an exit, and operating parameters, including amount of combustible gas and amount of oxygen;
>
> post-treating reaction products leaving the combustion chamber in a sorbtion chamber with an associated washing agent circuit containing washing agent having a selectable pH;
>
> measuring with a first detector the type and amount of selected harmful substances in the process waste gas before said waste gases enter the waste gas purification system to generate first measuring signals;
>
> determining with a second detector the type and amount of selected harmful substances of the reaction products leaving the waste gas purification system at the exit of the purification system to generate second measuring signals; and
>
> directly using the first and second measuring signals for adjusting the operating parameters of the waste gas purification system, including amount of combustible gas, amount of oxygen, amount of washing agent in the washing agent circuit, and pH of the washing agent.

The references set forth below are relied upon as evidence of obviousness:

Kisters et al. (Kisters)	4,229,411	Oct. 21, 1980
Tom	6,030,591	Feb. 20, 2000
Rossin et al. (Rossin)	6,069,291	May 30, 2000

All of the appealed claims are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rossin in view of Kisters and Tom.

We refer to the brief and reply brief as well as to the answer for a complete exposition of the opposing view points expressed by the appellants and by the examiner concerning the above noted rejection.

OPINION

For the reasons set forth below, this rejection cannot be sustained.

With respect to the appealed independent claim 1 distinctions over the primary reference to Rossin, the examiner states that:

> Rossin . . . does not disclose (1) the step of controlling the scrubbing condition by monitoring the amount of harmful substances in the effluent gas before and after the scrubbing step and (2) the decomposing step is carried in a combustion chamber having a combustible gas. [Answer, page 5.]

Concerning claim distinction (1), the examiner concludes

that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention was made [sic] to use the control method as suggested by Kisters . . . for the scrubbing step of Rossin . . . because such control method would automatically control the amount of neutralizing agent (e.g., caustic solution) for the scrubbing step" (answer, page 6). As for claim distinction (2), the examiner concludes that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention was made [sic] to incineration method to carried [sic] out the process of Rossin . . . to raise the process temperature by direct heating because such process is known and conventional in the art as shown by Tom" (answer, page 7).

The deficiency of the examiner's rejection arises from the fact that claim distinction (1) is inaccurate. While it is true that the method of Rossin does not include use of first and second detectors as required by appealed claim 1, the examiner erroneously believes that the first and second detector measuring steps of this claim occur "before and after the scrubbing step" (answer, page 5). Instead, the independent claim under review requires "measuring with a first detector . . . before said waste gases enter the waste gas purification system . . . " and

"determining with a second detector . . . at the exit of the purification system . . . . " Significantly, the waste gas purification system of claim 1 comprises a combustion chamber followed by a sorbtion chamber.

Thus, in order to comply with the first and second detector steps recited in the appealed independent claim, the method of Rossin would have to be modified to include use of a first detector for measuring the type and amount of selected harmful substances in the process waste gas before the waste gas enters patentee's catalytic oxidation chamber (which the examiner analogizes to the here claimed combustion chamber). However, the Kisters reference contains no teaching or suggestion of using a detector for measuring substances in process waste gas before the waste gas enters a waste gas purification system which comprises a combustion chamber followed by a sorbtion chamber as required by the claim before us. Rather, consistent with the examiner's discussion of this reference and the obviousness conclusion based thereon, Kisters' most upstream use of a detector occurs before the waste gas enters his absorber (e.g., see figure 1 and the specification disclosure relating thereto). Therefore, even if the teachings of Rossin and Kisters were combined, the result would be a method in which first detector measuring would occur

between Rossin's catalytic oxidizing step and his caustic scrubbing step.

Because such a first detector measuring location does not satisfy the corresponding first detector measuring requirement of appealed claim 1, the examiner's rejection is improper for this reason alone. It follows that we cannot sustain the Section 103 rejection of all appealed claims as being unpatentable over Rossin in view of Kisters and Tom.

The decision of the examiner is reversed.

REVERSED

BRADLEY R. GARRIS)
Administrative Patent Judge)
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CHARLES F. WARREN) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
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JEFFREY T. SMITH)
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BRG:hh

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